

OPEN LETTERS

Yampah and Filaree

I find on page 220¹ of my copy of J. C. Fremont's Narrative of "Explorations and Adventures in Kansas, Nebraska, Oregon and California" the following reference to *Anethum graveolens*: "At this place I became first acquainted with the yampah (*Anethum graveolens*), which I found our Snake woman engaged in digging in the low timbered bottom of the creek. Among the Indians in the Rocky Mountains, and more particularly among the Shoshone or Snake Indians, in whose territory it is very abundant, this is considered the best among the roots used for food." *Anethum graveolens* is described as locally naturalized from Europe in Southern California according to Jepson's Manual. Is it not possible that it could have been distributed from the region where Fremont saw it rather than from Europe?

In the same book I find on page 414² a reference to *Erodium cicutarium* on the American River where Fremont says he found Indian women gathering the leaves of that plant in baskets. They told him they cooked and ate the leaves. Can you give me any date at which this plant was introduced from the Mediterranean region? Did the agent which introduced the plant into the hills of California show the Indians how to use it or did they discover this for themselves after the plant became so widespread and common?—MRS. W. EGBERT SCHENK, Carmen del Cerrito, Mohave Desert, October 20, 1931.

Although Capt. John C. Fremont was a first rate observer of and took a marked interest in the native plants, he was in reality not a critical botanist, and he often called the new things he met in the west by the names of such similar things as he knew in the gardens at home. *Anethum graveolens* of Linnaeus, or dill, is a European plant long cultivated in the eastern United States. Fremont's "*Anethum graveolens*" is *Carum Gairdneri*, a plant indigenous in a vast area stretching from South Dakota and British Columbia to Colorado and southern California.

As to the second query: it has been generally supposed that the filaree (*Erodium cicutarium*) and the bur clover (*Medicago hispida*), both distinctly Mediterranean species, were unconsciously introduced into California by the Spanish missionaries, since they brought with them household goods, seeds for planting crops and above all bands of sheep, the great disseminators of certain kinds of seed. No one in California made any record of such things as weeds in those days. The period of introduction of the conspicuous European black mustard (*Brassica nigra*) is likewise very uncertain, although legends say that the Spanish missionaries brought it. In any event there are no definite scientific records of this mustard until rather recent decades. Even

¹ J. C. Fremont, A report of the exploring expedition to Oregon and North California in the years 1843-44. Official edition, p. 124.

² J. C. Fremont, l.c., p. 243.

the botanists of the California Geological Survey (1861-1870) are largely silent on these matters of alien weeds. Of course it is possible, though not so probable, that the filaree was introduced by some Spanish voyager at an earlier date than the Mission settlements. A decisive conclusion doubtless, is not now possible. As to the use of the filaree by the native tribes, these tribesmen knew better the plants that grew about them, from the standpoint of their tribal needs in food, medicine, implements, fibre and folk rituals, than any white man has ever known them. It is certain that the Indian would have no difficulty in making use of filaree on his own initiative. It is not likely that any white man could ever instruct a tribesman regarding the economic native plants from the standpoint of the tribesman's daily necessities. In his own special field the Indian was an expert.—W. L. JEPSON.

Artificial Vegetative Propagation of Redwood

My method for vegetative propagation of redwood (*Sequoia sempervirens*) is as follows. Cut away all suckers not well covered by soil. On the remaining suckers cut a wide notch about three-fourths through at the point of contact with parent root or bole. Pack with damp soil and stake. If the notch is too narrow it will heal over and not produce roots. Keep well watered and in a year's time there will be roots. But it is well to wait two or three years before the final cut from the parent bole. Then select suckers having the individual root system well started. Dig a hole wide and deep enough not to injure the terminals of the sucker's roots and with a saw cut away your plant. Wrap roots in wet burlap or some substitute at once. Suckers from one to two and one-half feet high are preferable. Plant them in good soil liberally mixed with humus. I recommend that they be planted in five gallon cans with holes punctured in bottom. It is advisable to keep them in a protected spot in partial shade and continuously damp. In this way they can be kept in cans until they are six or eight feet high. When planting in permanent place remove cans by cutting away with shears and keep well watered until firmly established. Use stakes with the crooked or leaning plants.—H. A. GREENE, Monterey, California.

NOTES AND NEWS

The California Botanical Society held a meeting on March 16, 1933 at 8:00 p. m. in Room 460, Physiology Building, Stanford University, Palo Alto. Dr. George J. Peirce, the president, occupied the chair. The first speaker, Mr. S. B. Show, Regional Forester of the United States Forest Service, discussed "Problems in Forestry as Applied Botany". Mr. Show pointed out some of the complexities of the problem confronting the manager of the state's most extensive farming operations. He must protect his millions of acres from attacks of insects and fungi, from overgrazing, fire and erosion. He must consider the conflicting interests of various groups of forest-